-115-

CLAIMS

What is claimed is:

A compound of the formula:

$$O = (CR^1R^2) - (Alk^1)_n - C - Y$$

in which;

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- a) X¹ is represented by cyano, halogen or haloalkyl,
- b) R¹ and R² are each independently represented by hydrogen or (C₁-C₈) alkyl, optionally substituted,
- c) Alk¹ is represented by a C₁-C₂ linear alkylene group, in which up to two hydrogen atoms are optionally replaced by a substituent selected from the group consisting of C₁-C₆ alkyl optionally substituted, halogen, hydroxy, thiol, and cyano,
- d) n is represented by the integer 0 or 1,
- e) Y is represented by NX²X³ or O-X³,
- f) X^2 is represented by hydrogen or $(C_{1} C_{6})$ alkyl optionally substituted,
- g) X³ is represented by
 - i. hydrogen.
 - ii. $(C_{1}C_{12})$ alkyl, optionally substituted,
 - iii. (C₂-C₁₂)alkenyl, optionally substituted,
 - iv. (C₂-C₁₂)alkynyl, optionally substituted,
 - v. (C₃-C₁₀)cycloalkyl, optionally substituted,
 - vi. (C₈-C₁₀) cycloalkyl(C₁-C₆)alkyl, in which the alkyl and cycloalkyl moieties may each be optionally substituted,
 - vii. (C₆-C₁₀)aryl, optionally substituted,
 - viii. (C₆-C₁₀)aryl(C₁-C₆)alkyl, in which the alkyl and aryl moieties may each be optionally substituted,

- ix. $-(CH_2)-(Alk^2)_q-C(O)R^3$, in which Alk^2 is represented by a (C_1-C_8) linear alkylene group, in which up to eight hydrogen atoms may optionally be replaced by a substituent, selected from the group consisting of (C_1-C_6) alkyl optionally substituted, (C_1-C_6) alkoxy, halogen, hydroxy, thiol, cyano, and NR^8R^9 in which R^8 and R^9 are each independently represented by hydrogen or (C_1-C_6) alkyl, q is the integer 0 or 1, R^3 is represented by hydrogen, (C_1-C_{12}) alkyl, (C_6-C_{10}) aryl, or (C_6-C_{10}) aryl (C_1-C_6) alkyl, in which the alkyl and aryl moieties may each be optionally substituted,
- x. \sim (CH₂)- (Alk²)_q -C(O)-O-R⁴, in which Alk² and q, are as defined above, and R⁴ is represented by hydrogen, (C₁-C₁₂)alkyl, (C₆-C₁₀)aryl, or (C₆-C₁₀)aryl(C₁-C₆)alkyl, in which the alkyl and aryl moieties may be optionally substituted,
- xi. -(CH₂)- (Alk²)_q -C(O)-NR⁵R⁶ in which Alk² and q are as described above, and R⁵ and R⁶ are each independently represented by hydrogen, (C₁-C₁₂)alkyl, (C₆-C₁₀)aryl, or (C₆-C₁₀)aryl(C₁-C₆)alkyl, in which the alkyl and aryl moieties may be optionally substituted,
- xii. -(CH₂)-(Alk²)_q-Y-R⁷, in which Alk² and q are as defined above, Y is O or S, and R⁷ is selected from the group consisting of hydrogen, (C₁-C₁₂)alkyl, (C₆-C₁₀)aryl, or (C₆-C₁₀)aryl(C₁-C₆)alkyl, in which the alkyl and aryl moieties may be optionally substituted,
- xiii. heteroaryl, optionally substituted,
- xiv. heteroaryl(C₁-C₆)alkyl, in which the heteroaryl and alkyl moieties may each be optionally substituted,
- xv. heterocyclic, optionally substituted,
- xvi. heterocyclic(C₁_C₆)alkyl, in which the alkyl

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and heterocyclic moieties may each be substituted, or,

- h) for those compounds in which Y is N, X² and X³, along with the adjacent nitrogen atom, may form a heterocyclic ring, which may optionally be substituted, or a salt, solvate, or prodrug thereof.
- 2. A compound according to claim 1 in which one of R¹ or R² is hydrogen and the other of R¹ or R² is selected from the group consisting of isobutyl, propyl, n-butyl, isopropyl, and ethyl.
- 3. A compound according to claim 1 or 2 in which n is 0.
- 4. A compound according to claim 1, 2, or 3 in which X¹ is trifluoromethyl and is located at the 3-position of the phenyl ring.
- 5. A compound according to claim 1, 2, 3, or 4 in which Y is NX²X³.
- 6. A compound according to claim 5 in which χ^2 is hydrogen.
- 20 7 A compound according to claim 6 in which X^3 is represented by a substituent selected from the group consisting of (C_1-C_{12}) alkyl, (C_3-C_{10}) cycloalkyl (C_1-C_6) alkyl, (C_6-C_{10}) aryl (C_1-C_6) alkyl, heteroaryl (C_1-C_6) alkyl, and heterocyclic (C_1-C_6) alkyl.
- 25 8. A compound according to claim 1, 2, 3, or 4 in which Y is OX3.
 - A compound according to anyone of claims 1-8 in which X¹ is represented by halogen or haloalkyl.
- 30 10. Use of a compound according to anyone of claims 1-9 as a medicine.
 - 11. Use of a compound according to anyone of claims 1-9 in the manufacture of a medicament for inhibiting activation of the androgen receptor

- 12. Use of a compound according to anyone of claims 1-9 in the manufacture of a medicament for the alleviating a condition selected from the group consisting of hormone dependent cancers, benign hyperplasia of the prostate, acne, hirsutism, excess sebum, alopecia, premenstrual syndrome, lung cancer, precocious puberty, osteoporosis, hypogonadism, age-related decrease in muscle mass, and anemia.
- A pharmaceutical composition comprising a compound according to anyone of claims 1-9 in admixture with 1, or more, pharmaceutically acceptable excipients.
- 14. A topical pharmaceutical formulation comprising a compound according to anyone of claims 1-9 in admixture with 1, or more, pharmaceutically acceptable excipients suitable for dermal application.
- 15. An article of manufacture comprising a compound according to anyone of claims 1-9 packaged for retail distribution, which advises a consumer how to utilize the compound to alleviate a condition selected from the group consisting of acne, alopecia, and oily skin.

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